



U.S. Fish & Wildlife Service

Reconnecting Great Lakes and Big Rivers Aquatic Habitats

Region 3 Fish Passage Program (Accomplishments 1999 - 2007)

Aquatic habitats in the United States are fragmented by millions of dams, culverts, dikes, water diversions, and other human constructed barriers. Many of these barriers have a negative impact on fish and other aquatic organisms, such as crayfish, freshwater mussels, and insects. This habitat fragmentation has a simple fix. By removing barriers, we open access for fish and other aquatic organisms to reproduce and grow. This will enhance biodiversity, help restore healthy populations of aquatic species, including fish, and provide more opportunities for you to catch fish!



-Minnesota Department of Natural Resources

Removal of the Dutton Locks dam and installation of step pools on the Pelican River in the Red River Valley of Minnesota. This project reconnected 10 miles of stream in support of lake sturgeon restoration efforts.



-USFWS

Reconnecting river and stream habitats improves recreational fishing.

What is the Fish Passage Program?

The U.S. Fish and Wildlife Service's National Fish Passage Program is a voluntary, non-regulatory program. The program provides federal funds and technical assistance to remove or bypass barriers to allow for passage by fish and other aquatic organisms. Since 1999, the Service has worked with a variety of partners to remove barriers and reconnect important aquatic habitats under this program.



Before Fish Passage Improvement
Johnson's Crossing culvert replacement in Michigan. This project reduced sediment loading and enhanced fish passage for brook trout.



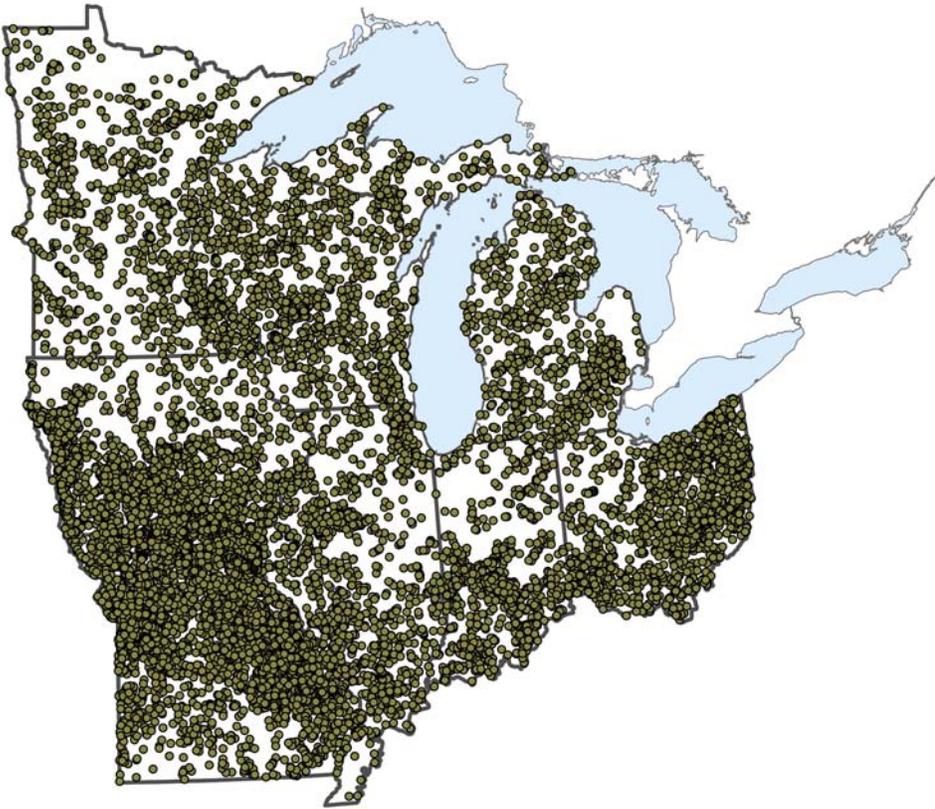
After Fish Passage Improvement
-USFWS photos

The goal of the National Fish Passage Program is to restore native fish and other aquatic species to self-sustaining levels by reconnecting habitats that have been fragmented by artificial barriers, where such reconnection results in a positive ecological effect.

Great Lakes / Big Rivers Region

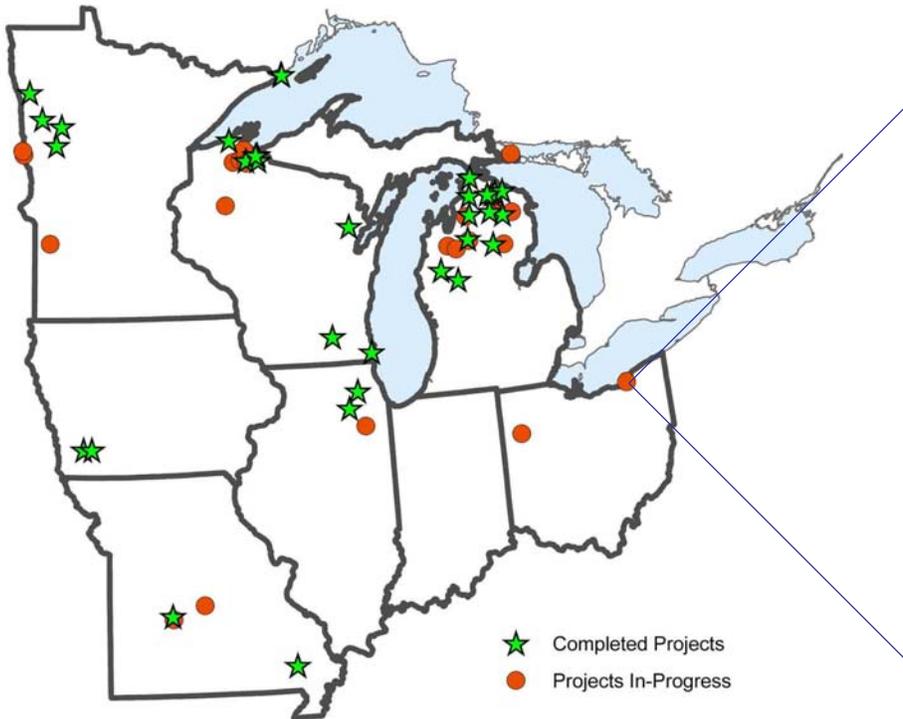
Region 3, the Great Lakes / Big Rivers Region of the Service, encompasses the states of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin. The Region is home to 60 million people who live and work in close proximity to some of North America's greatest freshwater resources: the Great Lakes, Upper Mississippi River, Lower Missouri River, the Ohio River and their respective watersheds.

Region 3 - Fish Passage Program



Fish passage barriers over 6 feet high in Region 3. There are approximately 15,300 dams over 6 feet high and hundreds of thousands of other smaller barriers to fish passage, such as culverts and road crossings in the Region. This map does not highlight those smaller barriers.

Source: U.S. Army Corps of Engineers. 2005. *National Inventory of Dams*.



Completed and in-progress Fish Passage Program projects in Region 3 (1999-2007). Projects include culvert renovations, dam removals, installations of fish passage structures or natural by-passes, and stream grade control structure modifications.

Status of Aquatic Resources

While the Great Lakes and Big Rivers ecosystems support tremendous aquatic biodiversity and numerous recreational and commercial fishing opportunities, the health of these systems and the abundance of many organisms is declining. Many aquatic organisms have declined because of habitat fragmentation resulting from barriers in rivers and streams.

Within the Midwest Region, 57% of native fish, 67% of crayfish and 64% of freshwater mussels are either imperiled locally or imperiled range-wide, while 3% of fish and 11% of freshwater mussels are possibly extinct.



-USFWS

Removal of the dam on Euclid Creek in Ohio will reconnect 10 miles of stream and provide increased recreational fishing opportunities. This project will also benefit the restoration of native species, such as the rainbow darter (below).



-Ohio Department of Natural Resources

Region 3 - Fish Passage Program

Accomplishments

Since 1999, the Region 3 Fisheries Program has initiated 69 projects, representing an investment of \$2,493,700 in Fish Passage Program funds and \$8,058,510 in matching partner support. These projects have involved culvert renovations, dam removals, installation of fish passage structures or natural by-passes, modification of stream grade control structures, and barrier inventories.

The Region 3 Fisheries Program has initiated 69 projects. To date, 87 barriers have been removed and 660 stream miles reconnected. Projects currently in progress will remove 23 barriers and reconnect an additional 394 stream miles.

These projects make additional habitat available for fish and other aquatic species to reproduce and grow; many projects also reduce sediment runoff to streams, which improves water quality. Some projects also improve public safety by removing unsafe dams. By removing barriers and reconnecting more stream and river habitats, we will increase fish populations and opportunities for catching fish, help recover threatened and endangered species and contribute to healthier watersheds with healthy economies.



Before Fish Passage Improvement



During Fish Passage Improvement

Removal of a dam and construction of step pools on the Pike River in Wisconsin reconnected 25 miles of habitat for salmonids and native warm water fish.



Installation of this step-pool fishway structure at Grand Portage Creek in Minnesota reconnected 3.5 miles of spawning and nursery habitat for coaster brook trout.



This culvert replacement at Mingo National Wildlife Refuge in Missouri reconnected 2.5 miles of stream habitat and approximately 1,500 acres of wetland habitat to benefit various species of gar, bass, sunfish, and darters.

-USFWS photos

Summary Table of USFWS Region 3 Fish Passage Program Accomplishments 1999 - 2007

	# of Projects	# of Barriers Removed/ In-Progress	# of Stream Miles Reconnected/ In-Progress	Fish Passage Program Funding	Partner Matching Funds and In-Kind Support	Total Project Costs	Number of Partners
Iowa	3	9	72.1	\$118,727	\$255,000	\$373,727	7
Illinois	3	5	172	\$207,387	\$851,442	\$1,058,829	32
Michigan	28	26	164	\$884,787	\$1,960,730	\$2,845,517	47
Minnesota	8	9	397.5	\$374,714	\$3,613,000	\$3,987,714	17
Missouri	7	6	59.4	\$337,153	\$539,690	\$876,843	14
Ohio	3	3	52	\$115,000	\$138,900	\$253,900	8
Wisconsin	17	52	137.7	\$455,932	\$699,748	\$1,155,680	30
Totals	69	110	1054.7	\$2,493,700	\$8,058,510	\$10,552,210	155

Region 3 - Fish Passage Program

Building Partnerships

The Fish Passage Program has become one of the Service's most popular initiatives and is a model for cooperative aquatic habitat restoration. We work with states, tribes, local municipalities, non-governmental organizations, watershed groups and many others. These partners provide important match funding and in-kind support which helps to stretch taxpayer dollars.



-USFWS

Strong partnerships are key to improving habitat for fish and other aquatic species.

The Region 3 Fish Passage Program has worked with over 155 partners. In total, partners have contributed \$3.23 for every \$1 in Fish Passage Program funding.

A New Watershed-Based Approach

In 2006, we initiated an effort to focus Fish Passage Program funding on projects that are important parts of larger watershed restoration plans. By focusing our resources in priority watersheds that are in-line with Service priorities and the priorities of our partners, we hope to have a greater positive impact on fish and other aquatic species in the Midwest.



Before Fish Passage Improvement



During Construction



After Fish Passage Improvement

Dam removal and ramp installation on the White Earth River in Minnesota reconnected 40 miles of stream habitat important for walleye and lake sturgeon.



Before Fish Passage Improvement



During Construction



After Fish Passage Improvement

The Turkey Creek grade control structure modification project in Iowa removed a total of 2 barriers and reconnected 8 miles of stream habitat to benefit channel catfish, flathead catfish, flathead chub, paddlefish, sauger, and topeka shiner.

-USFWS photos

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*FRO (Fishery Resources Office)

Additional Resources:

Region 3 Fisheries Program at: <http://www.fws.gov/midwest/Fisheries>
 Region 3 Fisheries Program - Fish Friendly Stream Crossings at: <http://www.fws.gov/midwest/Fisheries/StreamCrossings>
 National Fish Passage Program at: <http://www.fws.gov/fisheries/FWMA/fishpassage>
 Fish Passage Decision Support System at: <http://fpdss.fws.gov>